REMARKS

Claims 1 and 19-34 are presented for further examination. Claim 1 has been amended and claims 2-18 have been cancelled. Claims 19-34 are new.

In the first Office Action mailed February 21, 2008, the Examiner rejected claims 1-18 under 35 U.S.C. §112, first paragraph, on the grounds the specification did not provide adequate support for the scope of the claims. Claims 1-18 were also rejected under 35 U.S.C. §103(a) as obvious over Japanese Pat. No. 2002-343674 ("Kazuhiro").

Applicants respectfully disagree with the rejections and request reconsideration and further examination of the claims.

Claim Rejections under Section 112

The Examiner rejected claims 1 - 18 on the ground that the specification did not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate with the scope of the claims.

More specifically, the Examiner asserts that although Applicants disclose that the "agglutinant layer" may contain dielectric particles, that the dielectric particles weight ratio of weight in the binder is less than the weight ratio in the ceramic green sheet, that the binder in the agglutinant agent preferably belongs to the same binder group as the binder in the ceramic green sheet, that the placticizing agent preferably be about 0 to 200 weight % with respect to 100 weight parts of the binder, that the agglutinant layer preferably contain an amount of 0.01 to 15 weight percent of the binder and other specified properties, Applicants fail to disclose what the Examiner asserts is "crucial" to this invention, which is the make-up of the agglutinant layer, i.e., what this layer is made from, and that is the "gist" of the invention. The Examiner further states that even though Applicants may urge that the claims are directed to a method of making a multi-layered electronic component, the Examiner feels this process hinges around what this so-called "agglutinant" is and how it acts to allow the method to take place.

The Examiner further asserts that without explicit and clear details of what this "agglutinant layer" is made from or explicit details of where one can purchase this "layer" a PHOSITA would not be able to make or use the claimed invention.

Moreover, the Examiner asserts that Applicants have circumvented a full and adequate disclosure that would allow a PHOSITA to make or use the invention and have not provided specific compositions, manufacturing temperatures, or the like to allow a PHOSITA to choose a "agglutinant layer" material and thus carry out their claimed invention, and thus applicants merely provide "broad statements" of what this "critically important" layer may contain.

Applicants do not fully understand the Examiner's assertion.

Initially, applicants do not understand what "a PHOSITA" means, although it appears from the text of the Examiner's remarks that "a PHOSITA" means an ordinary person skilled in the art.

Even assuming this understanding about "a PHOSITA" is correct, applicants are still unclear about the Examiner's assertions. It appears to the applicants that the Examiner asserts that since the specification of the above-referenced application does not explicitly disclose what material is to be employed for making the "agglutinant layer," it is extremely difficult for even an ordinary person skilled in the art to carry out the claimed invention.

If applicant's understanding is correct, applicants respectfully submit that the Examiner's assertion is clearly incorrect.

More specifically, first, it is apparent from the detailed description on page 4, line 20, to page 5, line 20, of the English text that what is novel and indispensable in order to accomplish the present disclosure is that the "agglutinant layer" has such physical properties that the bonding strength between itself and the supporting substrate is higher than the bonding strength between the support sheet and the ceramic green sheet and lower than the bonding strength between itself and the release layer.

Further, since the detailed description explicitly states "In the present invention, the agglutinant agent solution contains a binder and, optionally, a plasticizing agent, a release agent and an antistatic agent" (page 19, lines 22 to 24 of the English text), it is clear that a

plasticizing agent, a release agent, and an antistatic agent are not indispensable components of the agglutinant agent solution.

In fact, the specification explicitly discloses in the Working Example on page 54, lines 18 to 23, "An ethyl alcohol solution containing 1-5 weight % of polyvinyl butyral and 0.75 weight % of dioctylphthalate was prepared and the surface of a sheet constituted as a polyethylene terephthalate film was coated with the ethyl alcohol solution, thereby forming an agglutinant layer having a thickness of 0.02 μm [emphasis added]" and the agglutinant agent solution prepared in the Working Example did not contain a release agent and an antistatic agent.

Thus, it is apparent from the description on page 19, line 22, to page 21, line 11, of the English text that if the agglutinant layer has such properties and is formed by coating the base substrate with an agglutinant agent solution containing a binder and, optionally, a plasticizing agent, a release agent, and an antistatic agent, the binder to be contained in the agglutinant agent solution is not particularly limited, and it is not essential in the present disclosure whether or not the agglutinant agent solution contains a plasticizing agent, a release agent, and/or an antistatic agent.

Therefore, there is no doubt that an ordinary person skilled in the art can carry out the claimed invention based on the detailed description without any difficulty.

Claim Rejection under Section 103

The Examiner further rejected claims 1 - 18 as obvious over Japan Pat. No. 2002-343674 by Kazuhiro.

Specifically, the Examiner asserts that Kazuhiro describes a method of making a laminated ceramic capacitor including steps of forming a binder layer 15 on a carrier film 13 formed on a die lubricant layer 12, applying a ceramic slurry to the surface where the binder layer 15 is provided so that the binder layer 15 is transferred to the green sheet 14, and laminating another green sheet 2 or an internal electrode 18 on the green sheet 14 via the binder layer 15 (Abstract); Kazuhiro describes at [00041 that a binder, platicizer, solvent and dielectric materials are used to carry out this invention; Si and a material such as polyester or polypropylene are used to form the surface (between the outer surface of the ceramic green sheet

and the substrate) of the laminate; Kazuhiro describes at [0023] that polyvinyl butyral resin can act as a binder, acetic acid n-butyl can be used as a solvent, dibutyl pthallate can be added to the dielectric material, which BaTiO3 as a plasticizer; Kazuhiro describes at [0025], for example that polyester can be used as the carrier film; thus, it would have been obvious to provide an agglutinant layer that is attached to a release layer of a multi-layered ceramic electronic component *i.e.*, an electronic component have a bonding strength that is less with respect to the release layer that the agglutinant layer has with respect to a support substrate.

The Examiner further asserts that the limitations defined in claims 2, 13 and 14 would have been obvious to a "PHOSITA" and would have been so without this person using undue skill or these limitations are mere design choice. Moreover, the Examiner asserts that although Kazuhiro does not expressly teach the limitations defined in claims 3 to 8, these limitations are obvious for an ordinary skill in the art.

However, as stated below, the method of making a laminated ceramic capacitor disclosed in Kazuhiro is essentially different from the method for manufacturing a multi-layered ceramic electronic component defined in the present claim 1, and therefore the rejection of claim 1 over the Kazuhiro reference should be withdrawn.

Kazuhiro discloses as a first embodiment a method for fabricating a multi-layered block 24 (Figure 8) including steps of forming a release layer containing Si as a primary component on the surface of a carrier film 13 formed of a material containing polyester resin as a primary component, coating the surface of the release layer with a binder containing polybutyral as a primary component to form a binder layer 15, coating the surface of the binder layer 15 with a slurry prepared by adding polyvinyl butyral resin as a binder, acetic acid n-butyl as a solvent, dibutyl pthallate as a plasticizer to a dielectric material containing BaTiO3 as a main raw material, drying the thus formed coating layer to form a ceramic green sheet 14, thereby fabricating a multi-layered body (Figure 2, [0023] and [0024]), bonding a polyester film 17 attached with an adhesive agent onto a pallet 16 as a support base, placing the multi-layered body shown in Figure 2 on the polyester film 17, applying a pressure of 80 kg/cm2 onto the multi-layered body under the temperature of 70°C to laminate the multi-layered body onto the polyester film 17 (Figure 3 and [0025]), peeling off the carrier film 13 and the release layer 12

from the binder layer 15 (Figure 4 and [0025]), laminating another multi-layered body onto the multi-layered body so that a ceramic green sheet 14 of the new multi-layered body is in contact with the surface of the binder layer 15 of the multi-layered body laminated on the polyester film 17, similarly laminating the new multi-layered body onto the multi-layered body laminated on the polyester film 17, peeling off the carrier film 13 and the release layer 12 from the binder layer 15 of the newly laminated multi-layered body and repeating the steps of laminating a new multi-layered body onto the multi-layered bodies laminated on the polyester film 17 and peeling off the carrier film 13 and the release layer 12 from the binder layer 15 of the newly laminated multi-layered body, thereby forming a lower inactive layer 20 (Figure 5 and [0026]), forming internal electrodes 18 containing Ni as a primary component on the lower inactive layer 20, laminating another multi-layered body onto the internal electrodes 18 so that a ceramic green sheet 14 of the new multi-layered body is in contact with the internal electrodes 18, peeling off the carrier film 13 and the release layer 12 from the new multi-layered body (Figures 6 and 7), repeating steps of forming the internal electrodes 18 and laminating the multi-layered body, and laminating an upper inactive layer 19.

Therefore, in the method disclosed in Kazuhiro as the first embodiment, since the step of laminating the multi-layered unit formed by laminating a ceramic green sheet, an electrode layer and a release layer on a support sheet in this order is not repeated. However, the steps of forming the internal electrodes 18 and laminating the multi-layered body including the ceramic green sheet 14, the binder layer 15, the release layer 12, and the carrier film 13 are repeated. Hence, the method disclosed in Kazuhiro as the first embodiment is basically different from the claimed method.

On the other hand, Kazuhiro describes as a second embodiment a method for fabricating a multi-layered block 24 including the steps of forming a binder layer 15 containing polybutyral as a primary component on the carrier film 13 formed of a material containing polyester resin as a primary component, screen-printing an electrode paste onto the surface of the binder layer 15 to form internal electrodes 18 (Figure 12), laminating a ceramic green sheet 14 formed with the binder layer 15 onto the pallet 16 onto which the polyester film 17 attached with the adhesive agent is bonded so that the ceramic green sheet 14 is in contact with the polyester

film 17, repeating lamination of the ceramic green sheet 14 formed with the binder layer 15 to form a lower inactive layer 20 similarly to the first embodiment ([0042]), placing a multi-layered body formed by laminating a release layer 12 and a binder layer 15 on a carrier film 13 in this order and forming inner electrodes 18 on the lower inactive layer 20 so that the inner electrodes 18 is in contact with the lower inactive layer 20, applying a pressure of 80 kg/cm2 onto the multi-layered body under the temperature of 70°C to laminate the multi-layered body onto the lower inactive layer 20 (Figure 13), peeling off the release layer 12 and the carrier film 13 from the binder layer 15 of the multi-layered body (Figure 14 and [0043]), transferring a ceramic green sheet 14 formed on a carrier film 13 onto the inner electrodes 18 of the multi-layered body, and repeating lamination of the internal electrodes 18 and the binder layer 15 and transferring of the ceramic green sheet 14 to form an upper inactive layer 19.

Therefore, in the method described in Kazuhiro as the second embodiment, since the step of laminating the multi-layered unit formed by laminating a ceramic green sheet, an electrode layer, and a release layer on a support sheet in this order is not repeated but the steps of lamination of the internal electrodes 18 and the binder layer 15 and transferring of the ceramic green sheet 14 are repeated, the method disclosed in Kazuhiro as the second embodiment is basically different from the claimed method.

Further, Kazuhiro describes as a third embodiment a method for fabricating a multi-layered block 24 including the steps of forming the release layer 12 on the carrier film 13, forming the binder layer 15 containing polybutyral as a primary component on the release layer 12, bonding a ceramic green sheet 14 containing 90% or more of a ceramic raw material containing BaTiO3 as a main raw material in polyolefin polymer onto the binder layer 15 using a pair of rolls shown in Figure 15 to fabricate a multi-layered body, superposing a predetermined number of multi-layered bodies, press bonding the predetermined number of multi-layered bodies with a pressure of 1.00 kg/cm2 onto the multi-layered body under the temperature of 90°C to form a lower inactive layer 20, forming internal electrodes 18 containing Ni as a primary component on the lower inactive layer 20 similarly to the first embodiment, transferring a ceramic green sheet 14 press bonded on the carrier film 13 onto the internal electrodes 18 using the pair of rolls shown in Figure 15, repeating the formation of the internal electrodes 18 and the

transferring of the ceramic green sheet 14 press bonded on the carrier film 13 to fabricate a laminated body, and press bonding an upper inactive layer 19 on the thus fabricated laminated body similarly to the formation of the lower inactive layer 20.

Therefore, in the method described in Kazuhiro as the third embodiment, since the step of laminating the multi-layered unit formed by laminating a ceramic green sheet, an electrode layer, and a release layer on a support sheet in this order is not repeated but the steps of the formation of the internal electrodes 18 and the transferring of the ceramic green sheet 14 press bonded on the carrier film 13 are repeated, this method is basically different from the claimed method.

Further, Kazuhiro neither discloses nor suggests any layer corresponding to the agglutinant layer of the present Claim 1.

Specifically, although Kazuhiro states "a polyester film 17 attached with an adhesive agent" ([0025]), this adhesive agent serves to bond the polyester film 17 onto the pallet 16 and therefore, the adhesive agent attached to the polyester film 17 does not correspond to the agglutinant layer of the present Claim 1.

Thus, it is a matter of course that Kazuhiro does not refer to the bonding strength of the adhesive agent at all.

As stated above, each of the methods for manufacturing a multi-layered ceramic capacitor described in Kazuhiro is basically different from the claimed method in that it is not directed to fabrication of a multi-layered ceramic electronic component by laminating a plurality of multi-layered units, each formed by laminating a ceramic green sheet, an electrode layer, and a release layer on a support sheet in this order; and, moreover, Kazuhiro does not teach or suggest the provision of the agglutinant layer.

Thus, since Kazuhiro does not even suggest not only one of the most important features of the claimed invention of positioning the multi-layered unit on a base substrate so that the surface of the release layer of the multi-layered unit is contact with an agglutinant layer formed on the surface of the base substrate and pressing the multi-layered unit to laminate it onto the base substrate, which is an important feature of the claimed invention along with the feature that the agglutinant layer has such physical properties that the bonding strength between itself

and the support substrate is higher than the bonding strength between the support sheet and the ceramic green sheet and lower than the bonding strength between itself and the release layer, it is almost impossible for even an ordinary person skilled in the art to derive the above identified features of the claimed invention from the description of Kazuhiro.

Therefore, applicants respectfully submit that the present Claim 1 is non-obvious over Kazuhiro.

Turning next to claim 19, present claim 1 does not define a step of peeling off the support sheet from the ceramic green sheet of the multi-layered unit laminated on the base substrate this step. Claim 19 is a combination of old claim 1 and the step of peeling off the support sheet. For the reasons discussed above, applicants respectfully submit that claim 19 is allowable.

Claims 20 – 32 are essentially renumbered claims 2-14, and claims 33-34 are essentially renumbered claims 17 and 18, respectively, all of which depend ultimately from claim 1. Applicants respectfully submit that these claims are allowable for the features recited therein as well as for the reasons why claim 1 is allowable.

In view of the foregoing, applicant respectfully submits that all of the claims in this application are clearly in condition for allowance. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact the undersigned attorney of record by telephone at (206) 622-4900 in order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

In view of the foregoing, applicants submit that all of the claims in this application are clearly in condition for allowance. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicants' undersigned representative by telephone at (206) 622-4900 in order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

Respectfully submitted,

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